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ABSTRACT

The study examined the educational efforts of five resource frontier communities (Thompson, Flin Flon, Lynn Lake, and Pinawa in Manitoba and Red Lake in Ontario) and compared their educational efforts with that of the Province of Manitoba. The measures of educational effort used were then evaluated to determine whether they might be usefully applied to other areas and communities. Data on population, school enrollment, wealth, and educational expenditures were collected for the period 1961 to 1968. Four sets of educational effort indexes were calculated--total operating expenditures and assessment; total net operating expenditures and personal income; net operating expenditures per pupil and personal income per capita; and municipal share of total operating expenditures and personal income. The income elasticity of demand for education was also calculated. Some findings were: (1) total educational expenditures for the communities of Flin Flon, Pinawa, Lynn Lake, and Red Lake, related to the local wealth indicators used, compared favorably with equivalent figures for Manitoba; (2) educational effort indexes for Thompson were generally equivalent to, or somewhat below, the figures for the other communities and Manitoba; and (3) when using the municipal shares of local educational expenditures, the communities' educational effort was reasonably equivalent to Manitoba's for most of the years examined. (NQ)

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Series 2: Research Reports No. 7

Educational Effort in Five Resource Frontier Communities

by
P. J. Husby

Center for
Settlement Studies

The University
of Manitoba

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EDUCATIONAL EFFORT IN FIVE RESOURCE FRONTIER COMMUNITIES

By

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$3.25
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FOREWORD

Communities differ in the vigor with which they provide financial resources in the support of their schools. They also differ in levels of economic wealth. More wealthy communities have a broader financial base from which to draw educational revenues. Thus the use of educational expenditure figures alone provide inadequate and unrealistic data for depicting the relative educational effort put forth by the citizens of different communities in their support of local schools.

One method that makes more meaningful inter-community comparisons possible involves the computation of indexes of educational effort which incorporate both educational expenditure data and indicators of community wealth. The present study was designed to measure the educational effort of a small sample of resource frontier communities using a variety of educational spending measures and two indicators of average community wealth. The objective of the study was only in part to make comparisons among the communities included in the investigation. A major objective was to evaluate the educational effort indexes themselves and to determine whether such statistics might be usefully applied to a wider selection of such communities.

This research report is based upon a series of studies of individual communities carried out by graduate students in the Faculty of Education, University of

Manitoba. Six such studies have been completed, and reports of these in the form of M.Ed. theses are in the Center for Settlement Studies library. Individuals wishing to study the original research documents or the extensive reviews of the literature which make up a part of each thesis are invited to examine these reports at their leisure. The graduate students involved, together with the community which each investigated, were: John Bock - Flin Flon; Conrad Sigurdson - Lynn Lake; Robert Chaiko - Pinawa; Victor Young - Thompson; Robert Gary Vinet - Red Lake; and Donald T. McKinnon - Manitoba. The writer wishes to acknowledge the assistance of these six researchers.

The original series of studies was conceived by Dr. Ian W. Patterson, formerly on the faculty of Education staff at the University of Manitoba. Dr. J. W. Peach took over the guidance of the project until July, 1969 following Dr. Patterson's move to Australia in April of that year. My association with the project began during the summer of 1969. The contributions of Dr. Patterson and Dr. Peach to this study are gratefully acknowledged.

The writer would also like to express his appreciation to:

- Dr. P. J. Atherton, Faculty of Education, University of Alberta, for guidance to the students during their early months of groping with their research problems;
- Dr. R. Bellan of the Department of Economics and St. John's College, Dr. J. W. Peach, Dr. H. E. May, and

Professor K. Slenz, Faculty of Education, all of whom acted as members of thesis committees;

- Dr. R. W. Dalton, Chairman, Manitoba Public Schools Finance Board, and Mr. B. E. Besteck, Director of Finance, Manitoba Department of Youth and Education, for their assistance and advice to the graduate students;
- The school officials and numerous other citizens in the communities of Thompson, Flin Flon, Lynn Lake, Pinawa and Red Lake for their cooperation and assistance to the students in the preparation of their studies.

P. J. Husby.

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I. INTRODUCTION

The expansion of educational services in Canada during recent decades particularly at the secondary school and post-secondary levels, has resulted in vastly increased educational expenditures. Total spending for education in Canada more than tripled from $1,873 million to $6,859 million between 1961 and 1969, and its share of the gross national product increased from 5.0 per cent to 8.7 per cent during that period. In Manitoba expenditures for elementary and secondary schooling during the same period rose from $60.6 million to $149.2 million, a factor increase of approximately 2.5 in eight years. The allocation of the nation's scarce resources to the educational enterprise in amounts of these magnitudes has resulted in a growing interest in the efficient and economic utilization of educational funds, and in the use of several economic measuring techniques for examining various aspects of educational finance.

There is, of course, no accepted method for determining what proportion of a nation's resources should be allocated to education for optimum social benefit. Some researchers have made use of international comparisons of the per cent of GNP that is devoted to education in various countries in an attempt to develop targets for

educational spending on the national scale.[1] Other studies on a state or provincial basis have been carried out in an attempt to develop internal norms.[2] The Canadian Teachers' Federation has initiated studies examining the relative educational burden and effort among the provinces in the provision of educational services in Canada.[3] Few studies, however, have examined such problems at the level of the local school system.

The resource frontier communities in the isolated areas of northern Canada present unique problems in the provision of educational services for local residents. Such communities, because of isolation and other factors, often have difficulties in attracting and holding a stable teaching force; building and supply costs tend to be relatively high; and the need for a variety of community services such as hospitals, recreational facilities, etc. as well as schools, often makes for very substantial demands on limited funds, particularly during the early years of community development. However, it is generally assumed that such services must be provided

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[1]Edding, Freidrich, "The Use of Economics in Comparing Educational Systems," International Review of Education, Vol. II (1965), pp. 453-65; and Harbison, Frederic, and Charles A. Myers, Education, Manpower and Economic Growth (New York: McGraw-Hill Co., 1964).

[2]Cf. Miner, Jerry, Social and Economic Factors in Spending for Public Education, (Syracuse, N.Y.: Syracuse University Press, 1963); Cheal, John E., Investment in Canadian Youth, (Toronto: MacMillan, 1963).

[3]Brown, W. J., Education Finance in Canada (Ottawa: The Canadian Teachers' Federation, September, 1969).

at levels that are reasonably equivalent to those found in the settled communities to the south if a stable pattern of development is to be achieved in resource frontier settlements. The contention is that families must be provided with educational, recreational and other social services that are sufficiently attractive to encourage their residence in such isolated communities without too great penalty, particularly to the children.[4]

Communities differ in the vigor with which they pursue the attainment of educational and other essential community services. Because of differing priorities, the citizens in one community may tax themselves stringently in order to provide first-class educational programs for their children, while in another community there may be reasonable satisfaction with services that are of much inferior quality. Differences in wealth may also play a part in the level of provision of community services. A wealthy community can, for example, more easily set aside substantial funds for educating its children than is possible for a poorer community to afford.

One method that has been found useful in making

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[4] A recent report in: J.S. Matthiasson, Resident Perceptions of Quality of Life in Resource Frontier Communities, (Research Report No. 2, Series 2, The Center for Settlement Studies, University of Manitoba, 1970), pp. 14 ff. offers some tentative evidence to refute this generally held assumption. This study suggests that educational services may not be one of the major priority community service needs as perceived by the present residents of one such frontier community--Fort McMurray in Alberta.

comparisons amongst communities in the provision of educational services is the utilization of indexes of educational effort.[5] Such statistics, which incorporate both school expenditure data and measures of relative wealth, may be useful to school administrators and other citizens in comparing the effort with which a given community provides for the education of its youth in relation to other communities in similar circumstances. In this report a number of such indexes are presented for a small sample of resource frontier communities.

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[5]Brown, *op. cit.*, Ch. 6.

II. STATEMENT OF THE PROBLEM

The major purpose of the present study was to measure the educational effort of five resource frontier communities, by utilizing ratios of educational expenditures to measures of community wealth. The communities selected for examination were Thompson, Flin Flon, Lynn Lake and Pinawa in Manitoba, and Red Lake in Ontario. For comparative purposes similar statistics descriptive of the educational effort of the province of Manitoba have also been incorporated in this report.[6] The data utilized are for selected years during the period 1961 to 1968.

The hypothesis to be tested in this study, stated in the null form, is that there are no differences in educational effort among the resource frontier communities of Thompson, Flin Flon, Lynn Lake, Pinawa and Red Lake, and between these five communities and the province of Manitoba.

A second objective of this study was to evaluate the several measures of educational effort utilized in this study and to determine whether they might be usefully

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[6]The assistance of J. Bock, R. Chaiko, C. Sigurdson, R. G. Vinet, V. Young and D.T. McKinnon, graduate students in the Faculty of Education, University of Manitoba, is hereby acknowledged. It should be pointed out here that reports of individual studies of the educational efforts of the four communities and of the province of Manitoba, in the form of M.Ed. theses, are available in the library of the Center for Settlement Studies.

applied to a broader sample of communities.

As noted above, this examination of community educational effort was delimited to the four Manitoba communities of Thompson, Flin Flon, Lynn Lake and Pinawa, and to Red Lake in Ontario. Figures were collected for the period from 1961 to 1968, with certain exceptions.

Since the study was concerned with an analysis of input data only, no attempt was made to identify educational outputs from the school systems in the five communities, nor to examine input to output relationships.

The communities selected for examination in this study are reasonably representative of that group of centres variously referred to as "single enterprise" or "resource frontier" communities, in that each is situated outside of the more settled areas of its province, each has one major industry which employs the bulk of the community work force, and this industry is dependent upon the natural resource characteristics of the surrounding area. They do not, however, make up a homogeneous set of communities. They differ in such important characteristics as population size and makeup, the degree of isolation from major population centres, the number of years the community has been in existence, municipal organization, and infrastructure. In addition, the nature of industrial activity in the several communities is thought to attract work force populations which differ in several important respects - such as the ratios of single to married men, and of skilled to unskilled labour, etc. - which may have important influences on the population

characteristics of the communities. Such inter-community differences have not been incorporated into the analysis in this study.

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III. METHODOLOGY

A considerable volume of data has been compiled for this report, much of which is presented in tables with a minimum of descriptive text. Included in the tables are: demographic data descriptive of community and school populations, statistics on total and "net" operating expenditures of the school systems in the selected communities, data indicating the relative wealth of the selected communities, and the calculated indexes of educational effort.

Total operating expenditure figures exclude the capital budgets of school boards; "net" operating expenditures exclude payments for debt retirement, capital expenditures from current revenue, and student transportation expenditures. The net operating expenditure figures therefore include those expenditure categories of school boards that are most closely associated with the educational programs provided within the schools, and were considered to be better indicators of a school board's spending intentions than were total operating expenditure figures. The latter include capital items which tend to fluctuate rather markedly from year to year, particularly in smaller communities. In addition, in certain of the resource frontier communities, buildings are provided by the major industry at no charge to the school board. Total operating expenditure figures therefore may make for unrealistic comparisons among communities in certain instances.

The measures of relative wealth utilized here include the equalized assessment of property within the jurisdictions of the school boards, and personal income data. Certain limitations in each of these measures are noted in the relevant sections of this report.

Educational effort, for the purpose of this study, is defined as the ratios of:

1. total operating expenditures and total operating expenditures per pupil to
   (a) total equalized assessment and equalized assessment per pupil, and
   (b) total personal income and personal income per person; and
2. the similar combinations of net operating expenditures to
   (a) equalized assessment, and
   (b) personal income; and
3. the municipal share of operating expenditures to total personal income.

A further set of effort indexes, termed the income elasticity of demand for education, is presented. This latter is defined as the percentage change in the demand for education for each one per cent change in incomes, and is calculated from the municipal share of operating expenditures and personal income figures.

In the absence of statistical measures for determining significant differences in educational effort among communities it was arbitrarily decided to consider differences in any particular set of index numbers in a

given year of 33 1/3 per cent or more to be significant; differences of less than this were considered to be non-significant. The standard in each case was the index for the province of Manitoba.

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IV. THE DATA

The data of population, school enrolment, wealth and educational expenditures that were utilized in determining the indexes of educational effort for this report are presented in the following sections.

POPULATION STATISTICS

Total population figures for the communities of Thompson, Flin Flon, Lynn Lake, Pinawa and Red Lake, and for the Province of Manitoba for the years 1961 to 1963[7] are presented in Table I. A considerable variation among the communities in population size and rates of growth is noted from these figures.

Thompson, the largest of the five communities in 1968, grew from a population of 3,418 as reported in the 1961 Census of Canada reports to an estimated 18,000 in 1968. This represents a dramatic growth rate of more than 400 per cent during this seven-year period. Flin Flon, the second largest of the five communities in 1968, showed a slight decrease in population during the period. Red Lake's population rose to a maximum of 2,755 in 1964

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[7] In Table I and subsequent tables data for certain of the communities for specific years are missing. In the case of Pinawa 1961 and 1962 figures are absent as the community was not established until 1963. In the case of Red Lake, most of the figures for the 1961-65 period were not collected for various technical reasons. The 1968 figures for Flin Flon were not available at the time that data gathering was terminated.

TABLE I

Total Population and Rates of Change, 1961-68

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba (000)
1961	3,418	11,104	2,045	-	2,568	921.7
1962	5,620	10,954	2,135	-	2,643	936.0
1963	7,681	10,824	2,145	225	2,666	949.0
1964	8,000	10,621	2,292	650	2,755	959.0
1965	9,248	10,338	2,146	1,100	2,510	965.0
1966	10,200	10,201	2,223	1,339	2,523	963.1
1967	15,000	10,210	2,341	1,779	2,510	963.0
1968	18,000	10,200	2,384	1,840	2,510	971.0
Percentage Change 1961-68	426.6	-8.1	+16.5	-	-2.2	+5.5

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TABLE II

School Enrolments

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba (000)
1961	537	2,857	417	-	691	192.7
1962	766	2,812	438	-	-	199.1
1963	1,015	2,846	440	66	-	205.8
1964	1,178	2,833	463	146	-	212.5
1965	1,362	2,771	475	307	671	218.8
1966	1,595	2,707	470	418	681	223.1
1967	1,874	2,679	482	507	691	224.5
1968	2,477	-	496	559	686	231.5
Percentage Change 1961-68	+361.3	-6.2	+19.0	-	-.7	+34.3

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and decreased slightly in subsequent years. The population of Lynn Lake increased at an average annual rate of about two per cent per year from 1961 to 1968, while Manitoba's population increased at less than one per cent per year on the average during this time. Pinawa on the other hand grew rapidly during the years from 1963 to 1968, from 225 to 1,840.

Of the five communities, therefore, Thompson and Pinawa were experiencing considerable pressures from rapid population growth during the period under consideration. Lynn Lake's population increase was more modest in comparison, while Flin Flon and Red Lake experienced slight decreases in total population during this time.

STUDENT ENROLMENTS

Total student enrolments in elementary and secondary schools in the communities under study are shown in Table II. These figures represent the student populations in the publicly supported school systems for the years shown, and in the case of Red Lake include enrolments in the public and separate schools in the Red Lake attendance area including Balmertown.

Comparisons in the changes in student population in Table II with total population figures in Table I between the years 1961 and 1968 suggest some puzzling questions. In the case of Manitoba, school enrolments increased substantially during this period, by 34.3 per cent, despite the very modest increase of only 5.5 per cent in provincial population, reflecting the very marked

increase in secondary school enrolments that were experienced in all of Canada during this time. In the case of the resource frontier communities included here, however, school enrolment changes show very much the same patterns of change as do the changes in total population.

Some explanation of these differences may be derived from the figures in Table III which show the number of students enrolled in school for each 100 of total population in the communities in question. Student enrolments form a larger proportion of total population in Flin Flon, Pinawa and Red Lake than is the case for Manitoba as a whole, while Lynn Lake's enrolment ratios are relatively similar to Manitoba's. Thompson, on the other hand, had a very much smaller ratio of students enrolled in school during each of the years shown.

The differences noted in Table II therefore may have to do with the population distributions within the communities rather than with the propensity of students to remain in school. It is possible that families in the resource frontier communities contain substantially larger numbers of younger children than are found in average Canadian families. If this is the case then the problems of school finance in such communities as Flin Flon, Pinawa and Red Lake are compounded by enrolment pressures that are proportionately greater than are those of the average Canadian community.[8] It would appear that this problem

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[8] A similar situation exists as between certain of Canada's provinces and the rest of Canada. Newfoundland has a substantially higher ratio of school age children in its population than does, for example, British Columbia. See: Brown, *op. cit.*, Ch. V.

TABLE III

Enrolment in School Per 100 of Total Population

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	15.7	25.7	20.4	-	26.9	20.9
1962	13.6	25.7	20.5	-	-	21.3
1963	13.2	26.3	20.5	29.1	-	21.7
1964	14.7	26.7	20.2	22.5	-	22.2
1965	14.7	26.8	22.1	27.9	26.7	22.7
1966	15.6	26.5	21.1	31.2	27.0	23.3
1967	12.5	26.2	20.6	28.5	27.5	23.3
1968	13.8	-	20.8	30.4	27.3	23.9

deserves further investigation.

EXPENDITURES OF SCHOOL BOARDS

Table IV presents data of total operating expenditures for elementary and secondary education in the communities of Thompson, Flin Flon, Lynn Lake, Pinawa and Red Lake, and for the province of Manitoba, for selected years from 1961 to 1968. In Table V are shown total operating expenditures per pupil enrolled in elementary and secondary schools.

It will be noted in Table V that total expenditures per pupil have tended to rise each year in each of the communities, with the amounts of increase rather greater during the latter years shown in the table. Table V also indicates major differences among communities in any given year in per pupil expenditures. For example, in the year 1967 expenditures per pupil ranged from a low of $408 in Lynn Lake to a high of $642 in Pinawa, while the figure for Manitoba was $515.

Such gross figures are perhaps somewhat misleading for reasons suggested previously. Total operating expenditures include debt charges, transportation costs and expenditures of a capital nature made from current revenues. In some communities such expenditures are relatively high, while in others of the communities shown school sites and buildings are provided by the major employer in the community at no charge to the school board, and in others because of the settlement patterns of the community no expenditures for student

TABLE IV

Total Operating Expenditures for Elementary and Secondary Education

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba (000,000)
1961	$122,785	$789,730	$111,183	-	-	$60.6
1962	214,768	821,537	123,103	-	-	64.7
1963	280,212	838,258	126,795	$22,910	-	69.7
1964	328,407	885,474	131,075	61,050	-	74.4
1965	372,538	921,794	135,493	99,790	-	81.1
1966	525,376	1,048,036	153,121	191,702	$302,840	92.0
1967	805,336	1,254,815	196,439	324,830	382,531	115.5
1968	1,301,254	-	225,909	336,930	469,988	135.0

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TABLE V

Total Operating Expenditures Per Pupil Enrolled

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	$229	$277	$267	-	-	$314
1962	281	292	281	-	-	325
1963	276	295	288	$350	-	339
1964	279	313	283	418	-	350
1965	274	333	285	326	-	371
1966	329	387	326	458	$427	413
1967	430	468	408	642	516	515
1968	525	-	455	602	585	586

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bussing are necessary.

With consideration being given to these differences among the communities, figures for "net operating expenditures" were determined and are presented in Table VI. As noted previously net operating expenditures were defined to include as their major components instruction, cost of supplies, administrative expenditures, and costs of plant operation and plant maintenance, and to exclude debt servicing, transportation costs and current capital outlays.

A comparison between Table VI and Table IV indicates that "Total" and "Net" expenditures differ appreciably for Flin Flon, Red Lake and Manitoba, while they are very similar for Thompson, Pinawa and Lynn Lake. In these latter three communities there were obviously only small outlays for debt servicing and transportation of students, whereas these expenditure categories were major cost factors for Flin Flon, Red Lake and the province of Manitoba.

Net operating expenditures per pupil are presented in Table VII. The variations in per pupil net expenditures among the communities are considerably less in a given year than were evident in the total per pupil expenditures shown in Table V. Net per pupil expenditures for Pinawa were somewhat higher each year than for the other communities shown; in all other cases the range in net per pupil expenditures was relatively narrow.

TABLE VI

Total Net Operating Expenditures

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba (000,000)
1961	$121,895	$715,733	$108,374	-	-	$47.0
1962	213,867	747,288	112,714	-	-	50.4
1963	278,693	761,127	123,866	$21,470	-	54.1
1964	319,518	782,974	126,432	50,456	-	58.2
1965	365,743	825,258	125,309	89,790	-	63.4
1966	520,020	896,511	148,274	181,712	$230,722	71.8
1967	796,261	1,065,700	189,778	312,310	276,803	91.4
1968	1,211,483	-	222,315	333,561	331,716	109.3

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TABLE VII

Net Operating Expenditures Per Pupil

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	$227	-	$260	-	-	$244
1962	279	$266	257	-	-	253
1963	274	266	282	$328	-	263
1964	271	276	273	345	-	274
1965	268	298	264	293	-	290
1966	326	331	315	435	$339	322
1967	425	398	394	616	401	407
1968	489	-	448	597	484	472

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INDICATORS OF COMMUNITY WEALTH

Since educational effort is defined as the ratio of some measure of educational expenditure to community wealth data, some valid indicators of total and per capita wealth were sought out for comparing the communities under investigation. The two sets utilized in this study were the assessed valuation of property in the communities and personal income. Each of these present certain problems in utilization as is noted below.

Assessed Valuation of Property

At one time, property was considered to be a valid indicator of individual and community wealth; in traditional economic theory land and its appurtenances, along with labor and capital, were held to be the major sources of the economic wealth of nations. However, during recent years, the trend towards apartment living, and the tendency of individuals to invest their funds in such items as automobiles and other more or less semi-durable goods which are not subject to property taxation in this country, have reduced the significance of the value of assessable property as an indicator of individual and community wealth. In addition, assessed valuations of property that is subject to property tax tend to lag behind "real" values. Additional problems in using assessment as indicators of community wealth for comparative purposes have to do with the fact that assessment formulae often vary considerably from community to community, and particularly across provincial boundaries, and that the value of property exempt from the property tax varies considerably from community to community.

Despite these problems, many recent studies have used the assessed valuation of property as an indicator of the average wealth of communities.

In Table VIII are shown data of the total value of property assessed for local government taxation purposes in the communities included in this study. A comparison of the total valuation of assessable property in each of the communities over the years shown in this table with the growth in educational expenditures in Table IV points out one of the current serious problems in financing public elementary and secondary education. To illustrate, Table IV indicates an increase in total operating expenditures for the province of Manitoba between 1961 and 1968 from $60.6 million to $135.0 million, a growth of a factor of 2.23. During this same period total assessments in Manitoba increased from $1,247.3 million to $1,823.3 million as shown in Table VIII, giving a growth factor of 1.47.

A similar situation exists for individual communities. For Lynn Lake, total educational expenditures more than doubled between 1961 and 1968 while the increase in assessment was in the order of 1.6. For Flin Flon the value of assessments increased only marginally while school expenditures increased significantly.

This failure of assessments to keep pace with educational costs accounts in part for the increasing difficulties of school boards in acquiring educational revenues from local resources, and for the steady shift

TABLE VIII

Total Property Assessment

	Thompson (000)	Flin Flon (000)	Lynn Lake (000)	Pinawa (000)	Red Lake (000)	Manitoba (000,000)
1961	$2,470	$9,337	$1,178	-	-	$1,247.3
1962	4,600	9,964	1,180	-	-	1,285.9
1963	6,355	9,979	1,605	-	-	1,335.5
1964	8,296	10,062	1,658	-	-	1,381.2
1965	8,703	10,142	1,716	$2,161	-	1,448.3
1966	9,807	10,386	1,788	2,178	$2,071	1,533.2
1967	10,312	10,237	1,828	2,659	2,137	1,733.3
1968	11,958	-	1,872	3,248	2,133	1,823.3

during this period towards increased provincial support for local education.

Table IX presents figures for assessment per pupil enrolled in the elementary and secondary schools. It will be noted from Table IX that per pupil assessments in Flin Flon, Lynn Lake and Red Lake were consistently below the Manitoba average, while the values for Pinawa and Thompson approached more closely the Manitoba figures. The values for Red Lake should be read with some caution in comparison with the others in the table as differences in assessment practices between Manitoba and Ontario are not known.

Personal Income

The personal income data utilized in this report were obtained from Government of Canada sources. For the individual communities personal income figures were supplied by the Department of National Revenue, Taxation Statistics Section, and were compiled from individual income tax statements of the community residents. The Manitoba figures on the other hand are taken from the Dominion Bureau of Statistics, National Accounts Income and Expenditure and printed in the 1969 edition of The Canada Year Book. The latter figures are derived from cash flow and other devious methods utilized by government economists, rather than from income tax data, and the extent of comparability between the two sets of figures is not known.

Total personal income figures for the communities

TABLE IX

Assessment Per Pupil

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	$4,600	$3,268	$2,825	-	-	$6,472
1962	6,005	3,543	2,695	-	-	6,458
1963	6,261	3,503	3,647	-	-	6,489
1964	7,042	3,552	3,580	-	-	6,401
1965	6,390	3,660	3,612	$7,044	-	6,620
1966	6,188	3,807	3,804	5,211	$3,041	6,872
1967	5,503	3,821	3,793	5,245	3,093	7,720
1968	4,682	-	3,733	5,815	3,109	7,871

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are presented in Table X, while personal income per capita is detailed in Table XI. An examination of Table XI suggests that the Manitoba communities of Thompson, Flin Flon, Lynn Lake and Pinawa enjoyed income levels somewhat in excess of those found in Manitoba for most of the years shown, perhaps in the order of seven or eight per cent on the average. Red Lake, on the other hand, had average income levels below the Manitoba figures, in the order of about fifteen per cent. These figures for Red Lake reflect the relatively hard times that befell the Red Lake community during the 1960's as a result of the state of the market for gold, the major resource base for that community.

COMMUNITY CONTRIBUTIONS TOWARD EDUCATIONAL EXPENDITURES

As indicated earlier funds for the support of elementary and secondary education are derived only in part by the local effort of the citizens of a community through tax levies on local property or through other revenue-raising activities within the local area. At one time parents paid school fees as a local contribution to educational revenues, but this practice has largely disappeared from the Canadian scene.

In some instances, and this appears to be a relatively common occurrence in resource frontier communities, certain properties are exempted from the assessment roles. Owners of such exempted properties may or may not make grants to the local taxation authorities in lieu of taxes. Thus in most communities school property is exempt from both school and municipal taxation; and

TABLE X

Total Personal Income

	Thompson (000)	Flin Flon (000)	Lynn Lake (000)	Pinawa (000)	Red Lake (000)	Manitoba (000,000)
1961	$8,518	$18,036	$3,039	-	-	$1,395
1962	-	17,668	-	-	-	1,578
1963	-	17,606	-	$825	-	1,599
1964	-	19,613	-	1,546	-	1,725
1965	18,900	20,346	4,725	2,433	$3,433	1,858
1966	24,106	22,844	5,213	2,972	4,486	1,997
1967	32,094	23,535	6,143	4,159	5,093	2,231
1968	-	-	-	4,739	5,923	-

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TABLE XI

Personal Income Per Capita

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	$2,492	$1,625	$1,642	-	-	$1,513
1962	-	1,612	-	-	-	1,686
1963	-	1,626	-	$3,668	-	1,685
1964	-	1,844	-	2,378	-	1,799
1965	2,044	1,956	2,202	2,121	$1,363	1,925
1966	2,363	2,240	2,345	2,220	1,778	2,074
1967	2,140	2,306	2,624	2,343	2,029	2,317
1968	-	-	-	2,575	2,360	-

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in certain cases provincial and federal government properties are not assessed, but grants in lieu of taxation may be paid by these governments to municipal and school authorities.

A practice that apparently occurs frequently both in resource frontier and other more "normal" communities is to grant tax concessions to investors as an inducement to them to establish operations. In other instances agreements are negotiated with investors which exempt properties from the tax rolls, but which include provision for the payment of grants in lieu of taxes to municipal and/or school authorities. The extent of this practice in individual communities is not known, because such agreements often are not publicized; however a recent study of education finance in Manitoba by the Manitoba Teachers' Society suggests that this may be a very common practice indeed.[9] This M.T.S. report notes that amounts paid to Manitoba municipalities in lieu of taxes are in total considerably less than the revenues that would be derived if such exempted properties were taxed at full tax rates.[10]

In the case of the resource frontier areas the

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[9] See: The Manitoba Teachers' Society. A Study of Education Finance in Manitoba, (Winnipeg, Man.: The Society, November, 1970), Ch.4. According to this report 24.2 percent of total property values in Manitoba were exempt from municipal taxation in 1969.

[10] *Ibid.*, p. 119.

properties of the major industry in each particular community may or may not be exempt from local government taxation, and if they are exempted, there may or may not be an agreement as to grants in lieu of taxes. In certain communities, such agreements include the provision in the community by the company of such facilities as school buildings, curling rinks and other recreational facilities, hospitals, etc. In attempting to ascertain details of the revenues of school boards in certain of the resource frontier communities researchers often are not able to determine the facts as to company property assessment exemptions and grants in lieu of taxation. In other communities such information is freely supplied.

Because of such problems it is often difficult to ascertain for individual resource frontier communities the source of local funds for the support of schools, and the real valuation of property for making comparisons among communities.

A second major source of revenues of school boards, in addition to locally derived funds by way of mill rate levies on local property assessments, is the provincial grant. In Manitoba such provincially derived funds now account for more than fifty per cent of total school board operating revenues in the province. Hence, the provision of education in any individual community in a province is to a great extent a result of the financial effort of all the citizens of the province. Individual communities no longer have to rely on their own resources for the provision of educational services.

The municipal share of total school board revenues for the five communities and for the province of Manitoba are presented in Table XII. Because they exclude provincial government grants in support of local school operations, they provide an indication of the vigor with which the local citizens in each community support their schools. The figures presented in Table XII represent the total of locally derived funds for school purposes, including where applicable company contributions in lieu of school taxes. For the years 1967 and 1968 revenues from both the foundation program levy and the special levy are included in the figures for the communities of Thompson, Flin Flon and Lynn Lake, and for the province of Manitoba.

Table XIII presents figures indicating the percentage of total school board operating expenditures that were financed by locally derived revenues. The percentage figures given in Table XIII were calculated from the data in Tables IV and XII.

In Table XIV are shown the municipally derived revenues for the support of schools expressed in per capita terms, with data derived from Tables I and XII. Some indication of intercommunity differences in the local support for education are suggested in these figures. However, because they do not include data of the relative wealth of the communities, they are not too satisfactory for the purpose of drawing conclusions with respect to the relative educational effort of the several communities included in this study.

TABLE XII

Locally Derived Revenues in Support of Education

	Thompson[a] (000)	Flin Flon[a] (000)	Lynn Lake[a] (000)	Pinawa[b] (000)	Red Lake (000)	Manitoba[c] (000,000)
1961	$96.1	$456.6	$67.1	-	-	$36.2
1962	145.9	480.4	63.2	-	-	38.4
1963	212.4	482.2	76.1	-	-	41.6
1964	283.3	519.5	83.4	-	-	44.3
1965	288.7	522.1	84.3	-	-	48.7
1966	356.3	576.0	90.5	$52.6	$104.7	54.5
1967	370.2	455.7	56.3	76.1	135.1	55.6
1968	626.2	-	102.8	93.5	144.9	61.9

Notes: [a]Figures include grants in lieu of taxes from the major company in the area. For 1967 and 1968 totals include foundation program levies, special levies, and company contributions.

[b]Figures exclude grants from Atomic Energy of Canada, Ltd.

[c]Total operating expenditures less provincial and federal government contributions.

TABLE XIII

Locally Derived Revenues

as Per Cent of Total Operating Expenditures

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	77.8%	57.8%	60.0%	-	-	59.6%
1962	67.8	58.4	51.3	-	-	59.4
1963	75.7	57.5	60.1	-	-	59.7
1964	86.3	58.6	63.5	-	-	59.7
1965	77.5	56.6	62.2	-	-	60.1
1966	67.8	54.9	59.1	46.0%	36.1%	59.4
1967	42.1	36.3	27.6	39.9	37.8	48.2
1968	48.0	-	47.5	51.7	36.1	45.9

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V. INDEXES OF EDUCATIONAL EFFORT

The indexes of educational effort utilized in this study were derived as ratios of educational expenditure figures to indicators of community wealth.

To illustrate the discriminating characteristics of such indexes, hypothetical per pupil expenditure and per person income for four communities A, B, C and D are presented in the following table, and their indexes of educational effort are compared:

	Expenditure Per Pupil	Income Per Capita
Community A	$100	$1,000
B	200	1,000
C	200	2,000
D	100	2,000

	Index of Educational Effort		
Community A	$\frac{100}{1,000}$	=	.10
B	$\frac{200}{1,000}$	=	.20
C	$\frac{200}{2,000}$	=	.10
D	$\frac{100}{2,000}$	=	.05

With similar income levels, community B expends double the funds per pupil, and its effort index is

double that for community A. Community C is twice as wealthy as community A, but per pupil expenditures are double those in community A; therefore the effort indexes are equal. Community D is also twice as wealthy as community A, but since educational spending is the same, the effort index for community D is only one-half that for community A, while it is only one-quarter the value for community B. Thus these indexes provide a relatively simple method of comparing the educational effort of communities that are in similar circumstances. There are certain technical problems associated with the utilization of effort indexes when comparing communities that differ markedly in relative wealth; but where such differences are not extreme, they make a useful basis for comparisons.

It should be pointed out that a large number of indexes could be determined from the data presented in the previous section because of the large number of combinations of expenditure and wealth figures possible. The five sets of indexes presented below were considered to be the most revealing of those possible. In addition, it should be noted that indexes from one table are not comparable with those from another. Finally, as was noted in Section III of this report, there are no statistical guidelines for determining significant differences in educational effort among communities, and it was arbitrarily determined for this study to consider differences of 33 1/3 per cent above or below the Manitoba figures to be indicative of a statistically significant difference while differences of less than

this amount were considered to be non-significant.

EDUCATIONAL EFFORT MEASURED IN TERMS OF TOTAL OPERATING EXPENDITURES AND TOTAL ASSESSMENT

Table XV presents the first set of indexes for this study. These were developed from the total operating expenditure figures presented in Table IV used as the numerator, and the total property assessment data from Table VIII used as the denominator.

At first glance it would appear from this table that the educational effort put forth by each of the resource frontier communities was far in excess of that for the province of Manitoba as a whole. If the 1967 indexes are compared, the values for Flin Flon and Pinawa are almost double the Manitoba figure, while that for Lynn Lake is approximately 1.6 times greater than the figure for Manitoba. The index for Red Lake is almost triple the Manitoba index. The index for Thompson on the other hand is only fractionally above the Manitoba figure in 1967.

One must be cautious, however, in such preliminary interpretations. The value of property assessments in the resource frontier communities may be understated due to property being exempted from the assessment roles, in which case the community indexes shown in Table XIV would be higher than they should be. In addition, not all funds represented by the educational expenditure figures are derived from local sources, as was noted in Tables XII and XIII.

TABLE XIV

Locally Derived Educational Revenues Per Capita

(Rounded to the nearest dollar)

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	$28	$41	$33	-	-	$39
1962	26	44	30	-	-	41
1963	28	44	35	-	-	44
1964	35	49	36	-	-	46
1965	31	50	39	-	-	50
1966	35	56	41	$39	$41	57
1967	25	45	24	43	54	58
1968	35	-	43	51	57	64

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TABLE XV

Educational Effort Measured in Terms of
Total Operating Expenditures and Total Assessment

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	.050	.084[A]	.094[A]	-	-	.049
1962	.047	.082[A]	.104[A]	-	-	.050
1963	.044	.084[A]	.078[A]	-	-	.052
1964	.040	.088[A]	.085[A]	-	-	.054
1965	.042	.091[A]	.079[A]	.046	-	.056
1966	.054	.101[A]	.087[A]	.088[A]	.146[A]	.060
1967	.078	.122[A]	.107[A]	.122[A]	.179[A]	.067
1968	.108[A]	-	.121[A]	.104[A]	.220[A]	.074

Note: "A" indicates an effort index significantly above the Manitoba norm.

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EDUCATIONAL EFFORT MEASURED IN TERMS OF TOTAL NET OPERATING EXPENDITURES AND TOTAL PERSONAL INCOME

Table XVI presents a second set of indexes of educational effort utilizing in the numerator total net operating expenditures from Table VI and in the denominator the total personal income figures from Table X.

An examination of the indexes in Table XVI suggests that the educational efforts of Red Lake and Pinawa communities were significantly higher than those for the province of Manitoba, while the indexes for Flin Flon and Lynn Lake were very similar to those for Manitoba. The indexes for Thompson, on the other hand, indicate an educational effort significantly below that for Manitoba.

EDUCATIONAL EFFORT MEASURED IN TERMS OF NET OPERATING EXPENDITURES PER PUPIL AND PERSONAL INCOME PER CAPITA

Table XVII presents indexes of educational effort derived from per pupil net operating expenditures and per capita personal income data from Tables VII and XI.

The index numbers found in Table XVII incorporate a number of variables that are excluded from certain of the tables previously presented. Educational expenditure figures utilized here take into consideration the number of pupils enrolled in the schools, and income is in relation to total community population. For these reasons, the indexes in Table XVII probably represent a more accurate measure of educational effort in the communities involved than do those presented previously.

TABLE XVI

Educational Effort Measured in Terms of Total Net Operating Expenditures and Total Personal Income

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	.014[B]	.040	.036	-	-	.034
1962	-	.042	-	-	-	.032
1963	-	.043	-	.026	-	.034
1964	-	.040	-	.035	-	.034
1965	.021[B]	.041	.027	.037	-	.034
1966	.022[B]	.039	.028	.061[A]	.068[A]	.036
1967	.025[B]	.045	.031	.075[A]	.075[A]	.041
1968	-	-	-	.071	.079	-

Note: "A" indicates an educational effort significantly above the Manitoba figure.

"B" indicates an educational effort significantly below the Manitoba figure.

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TABLE XVII

Educational Effort Measured in Terms of Net Operating Expenditures per Pupil and Personal Income per Capita

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	.091[B]	-	.158	-	-	.161
1962	-	.165	-	-	-	.150
1963	-	.163	-	-	-	.156
1964	-	.150	-	-	-	.152
1965	.131	.152	.120	.214[A]	-	.151
1966	.142	.148	.134	.244[A]	.191	.155
1967	.198	.172	.150	.312[A]	.197	.177
1968	-	-	-	.253	.205	-

Note: "A" indicates an educational effort significantly above the Manitoba norm.

"B" indicates an educational effort significantly below the Manitoba norm.

Table XVII indicates that only Pinawa demonstrated an educational effort at a level significantly higher than Manitoba, in terms of the definition of significance utilized in this study. The indexes for Flin Flon and Lynn Lake are somewhat lower than the Manitoba figures, but are not by our definition significantly different from them.

EDUCATIONAL EFFORT MEASURED BY MUNICIPAL SHARE OF TOTAL OPERATING EXPENDITURES AND TOTAL PERSONAL INCOME

Because part of the revenues of school boards are derived from provincial grants, educational indexes calculated utilizing total expenditure data tend to give somewhat misleading statistics of local effort. For this reason one set of effort indexes was determined utilizing expenditure data that are more closely related to locally raised school funds. In Table XVIII are presented educational effort indexes calculated from the municipal share of school board operating expenditure figures from Table XII and total personal income data from Table X.

An examination of Table XVIII points out a relatively stable index of educational effort over the seven-year period from 1961 to 1967 for the province of Manitoba, suggesting that municipal contributions to elementary and secondary education in Manitoba maintained a close correspondence to changes in per capita income levels over this period. More fluctuation was apparent in the case of each of the resource frontier communities.

TABLE XVIII

Educational Effort Measured in Terms of Municipal Share of Operating Expenditures and Total Personal Income

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
1961	.011[B]	.025	.022	-	-	.022
1962	-	.026	-	-	-	.021
1963	-	.027	-	-	-	.022
1964	-	.026	-	-	-	.022
1965	.015	.026	.018	-	-	.022
1966	.015[B]	.025	.017	.018	.023	.023
1967	.012[B]	.020	.009[B]	.018	.026	.022
1968	-	-	-	.020	.024	-

Note: "B" indicates an effort index significantly below the Manitoba norm.

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These indexes for Flin Flon and Red Lake are greater but not significantly greater than the Manitoba indexes during most of the years shown. Pinawa's indexes are slightly below the Manitoba figures, as are those for Lynn Lake. The 1967 index for Lynn Lake is significantly below the Manitoba index for that year. The indexes for Thompson appear to be consistently below those for Manitoba and the four other communities in Table XVIII.

EDUCATIONAL EFFORT MEASURED IN TERMS OF INCOME ELASTICITY OF DEMAND FOR EDUCATION

The income elasticity of demand for a commodity is defined by economists as the percentage change in the demand for that commodity in response to a one per cent change in income. As incomes rise the demand for different goods tends to change. For example, with increased incomes the demand for automobiles may rise more rapidly than income levels, while the demand for such goods as salt or hamburger may tend to remain relatively unchanged or to actually decrease. An income elasticity greater than unity for a commodity indicates an increase in spending for that commodity proportionately greater than the increase in incomes, while an income elasticity of less than unity represents a change in expenditure patterns for a commodity at a rate below that for the increased income levels. Economists have found this measure to be a useful tool in charting the supply and demand curves for many commodities, and they have been utilized in numerous studies in educational finance to note changes in spending for education in time of rising incomes.

As was true with the indexes of educational effort presented earlier, a large number of income elasticities of demand for education may be computed from the data compiled for this study, depending upon the expenditure and income measures used and the years selected for consideration. Only one set is presented in this report.

In Table XIX are presented income elasticities of demand for education for the five communities and for Manitoba calculated from the municipal share of school board revenues and total personal income figures from Tables X and XII for two different periods. For Thompson, Flin Flon, Lynn Lake and Manitoba the period was 1961-66, while for Pinawa and Red Lake the period was from 1966-68.

Table XIX suggests that for the period under consideration school board expenditures in the province of Manitoba which were derived from revenues from local community resources tended to rise at a rate somewhat in excess of personal incomes, by a ratio of 1.17 to 1.0. Corresponding income elasticities for the five communities are also indicated in the table. The figure for Lynn Lake, 0.49, appears to be dramatically below those for the other communities, while that for Flin Flon is close to unity. The income elasticities for Thompson, Pinawa and Red Lake are somewhat higher than the Manitoba figure, suggesting that in these communities for the years under consideration local revenues for education increased at a somewhat faster rate than did personal income.

TABLE XIX

Income Elasticity of Demand For Education
Derived From Municipal Share of Educational Expenditures
and Total Personal Income[a]

	Thompson	Flin Flon	Lynn Lake	Pinawa	Red Lake	Manitoba
Per cent increase in total personal income for period	182.5	26.6	71.6	59.4	28.8	43.2
Per cent increase in municipal share of educational expenditures	271.0	26.2	34.8	77.8	38.4	50.6
Income elasticity of demand for education	1.48	.99	.49	1.31	1.31	1.17

Note: [a]Figures for Pinawa and Red Lake were determined from 1966-68 data; those for Thompson, Flin Flon, Lynn Lake and Manitoba from 1961-66 data.

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VI. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to examine the educational efforts of the resource frontier communities of Thompson, Flin Flon, Lynn Lake and Pinawa in Manitoba, and of Red Lake in Ontario, and to compare the educational efforts of these communities with that of the province of Manitoba. This project was somewhat exploratory in nature; in addition to gathering data which may be useful to school officials and other interested citizens and groups in these particular communities, the study had the objective of evaluating various methods of determining the educational effort of communities for the purpose of judging whether this research method might be usefully applied more generally to other areas and communities.

SUMMARY

Four sets of indexes of educational effort were calculated for the five communities and Manitoba based upon various school expenditure and community wealth measures. The figures for these were presented in Tables XV through XVIII in the previous section. In addition the income elasticity of demand for education for the five communities and Manitoba was calculated; these were presented in Table XIX.

The various indexes give somewhat conflicting evidence of educational effort in the communities,

depending upon the statistics selected in making the calculations.

In terms of total and net educational spending, the educational effort indexes for the four resource frontier communities of Flin Flon, Pinawa, Lynn Lake and Red Lake appear generally to have been equivalent to, or somewhat in excess of, those for the province of Manitoba during the 1961 to 1968 period, suggesting that total educational expenditures in these communities, related to the local wealth indicators utilized in this study, compared favorably with equivalent figures for Manitoba. Thompson, however, perhaps because of the fact that its ratio of school population to total population was considerably below those for the other communities examined, had educational effort indexes that were generally equivalent to, or somewhat below the figures for the other communities and the province of Manitoba during this period.

When the municipal shares of local educational expenditures were utilized in the determination of such indexes the educational effort of the communities appeared to be reasonably equivalent to those for Manitoba for most of the years examined.

The figures calculated for the income elasticity of demand for education, based upon personal income and municipal share of educational expenditure data, suggest rather different conclusions in terms of community effort in the support of schools. The income elasticities for Thompson, Pinawa and Red Lake suggested an educational

effort for these communities somewhat in excess of that for Manitoba, while the corresponding figure for Flin Flon was slightly below, and Lynn Lake's was substantially below, this Manitoba index.

CONCLUSIONS

The following general conclusions of this investigation are warranted:

1. There is insufficient evidence to conclude that differences in educational effort among the communities are of a statistically significant magnitude. The null hypothesis was therefore accepted.
2. Indexes of educational effort of resource frontier communities which utilize assessment figures as the wealth indicators are of little comparative value because of differences in the amounts of property exempt from local government taxation among communities and differences in assessment formulae, particularly between provinces.
3. Such indexes can only be used for describing events that have happened during previous years; they have little predictive value. In particular, the long delay of three or more years in securing reliable figures of income levels in communities makes it impossible to calculate effort indexes using up-to-date data.
4. The concept of educational effort of individual communities is becoming less meaningful because of current trends in educational finance. Provincial funds are becoming more significant each year as a source

of local school board revenues. Because of this, the educational effort of all communities within a province is becoming more a provincial rather than almost exclusively a community matter as it used to be in earlier days when locally derived funds did make up the bulk of local school board revenues. A further complication in searching out local effort for the support of schools is inherent in the concept of the foundation program for financing the public schools of a province. In Manitoba foundation program funds for distribution to unitary school divisions are derived from both the consolidated revenues of the province and from a foundation program levy on all foundation program municipalities. This tends further to the sharing by school boards in individual communities of educational revenues collected from the whole province.

5. The trend towards enlarged areas of school board jurisdiction makes for further difficulties in ascertaining the effort of individual communities in the support of their schools. To illustrate, the Fort Frances-Rainy River Board of Education derives school tax revenues from Fort Frances and Rainy River as well as from the intervening communities, and from provincial grants, and pools these for expenditures throughout the area. Accounting procedures do not permit easy access to school revenue and expenditure data for Fort Frances alone.

RECOMMENDATIONS

During the compilation of material for this report,

several areas of research deserving further investigation were noted. It is strongly recommended that the following three studies be given immediate priority in investigation:

1. A study of the population distribution by age groups and the resulting financial problems facing school boards in resource frontier communities.
2. A study of the holding power of secondary schools in resource frontier communities to ascertain differences between resource frontier communities and more conventional communities in the school attendance ratios of older students.
3. A study of the effects of property exemptions on taxation levels and school and other municipal revenues in resource frontier communities.

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CENTER FOR SETTLEMENT STUDIES

THE UNIVERSITY OF MANITOBA

At a meeting in December, 1966, forty-one staff members from eighteen departments at this University expressed a common interest in the growing complexity of problems associated with human settlement. The concern of the group focused primarily on the communities of western and northern Canada. The need for an interdisciplinary approach to these many-sided problems was agreed upon. The Center for Settlement Studies originated from this common concern.

On the assumption that the problems of human settlement might be the limiting factor in the social and economic development along Canada's resource frontier, the study of these communities was selected as the first major focus of research.

The broad, implicit hypothesis is that the conditions of life (real or imagined) in frontier communities is currently a significant influence on the natural resource development of those regions. Hence, the purpose of current Center-sponsored research is to acquire a better understanding of the factors that help or hinder the growth of this type of community.

Central Mortgage and Housing Corporation, an agency of the Government of Canada, is currently the major source of extra-mural financial support for this research program.

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